## Caged Fullbore Flowmeter (6-Arm CFBM)

Halliburton's Caged Fullbore Flowmeter (6-arm CFBM) is a larger variation of the 3-arm CFBM. Like its smaller counterpart, the 6-arm CFBM accurately measures downhole flow rates with coverage over a large cross section of the casing. Run at the bottom of the production-logging tool string, the 6-arm CFBM centers the spinner and supports the tool weight in deviated wells. Using a large-diameter impeller, it has the ability to detect very low flow rates, making it a valuable tool for operators and logging engineers. In addition, it has some extra upgrade options unavailable on the smaller model.

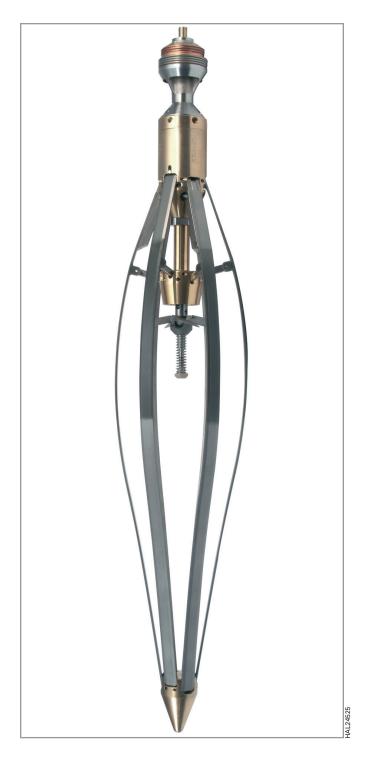
The tool has a 6-arm, spring-loaded cage that centers the spinner in the middle of the flow and supports tool weight in deviated wells. A large diameter impeller measures flow rates with coverage over a large cross section of the casing. The spinner runs on precision bearings, and its rotation is sensed by zero-drag Hall-effect detectors, the signal from which is converted into a flow-rate measurement. The low mechanical threshold of the tool enables it to be used in low flow rates, and normal output is 10 pulses per revolution with directional indication.

## **Benefits**

- Provides accurate velocity measurements in highly deviated and horizontal wells
- Provides velocity measurement in low flow-rate wells
- · Helps detect leaks and crossflows
- Fullbore velocity profiling for both injection and production wells

## **Features**

- Interchangeable mechanical sections to match casing sizes from 4-1/2 to 9-5/8 in. (114 to 245 mm)
- Fully combinable with all Ultrawire™ production-logging tools
- Surface readout and memory-logging operations
- Lockable spinner for high-rate injection wells (standard feature for 9 5/8-in. tools)
- Solid impeller shafts for very high-rate wells





Caged Fullbore Flowmeter (6-Arm CFBM)		
Temperature Rating	350°F (177°C)	
Pressure Rating	15,000 psi (12,000 psi for 1 1/2-in. tool)	103.4 MPa (82.7 MPa)
Tool OD	1-11/16 in. (43 mm), 1-1/2 in. (38 mm)	
Tool Length	2.91 ft (0.889 m)	
Tool Weight (dependent on spinner and cage sizes)	10 lb (4.5 kg) for 1-11/16 in. tool with 7-in. cage	
Sensor Measure Point (from bottom of the tool)	13.5 in.	343 mm
Materials	Corrosion resistant throughout	
Output	10 pulses/rev (bi-directional)	
Spinner Threshold	1.7 ft/min (0.009 m/s) (approx), 100 B/D (15.9 m³/d) through 7-in. casing	
Maximum Fluid Velocity	500 ft/min (2.540 m/s), 28,250 B/D (4,491 m³/s) through 7-in. casing	
Casing Range	4-1/2 in. to 9-5/8 in.	

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## For more information, contact your local Halliburton representative.

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